



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,178	02/24/2004	Jang-Kun Song	6192.0164.C1	1140

7590 02/22/2006

McGuireWoods LLP  
Suite 1800  
1750 Tysons Boulevard  
McLean, VA 22102

EXAMINER

SCHECHTER, ANDREW M

ART UNIT PAPER NUMBER

2871

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/784,178

Applicant(s)

SONG ET AL.

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26,27,29-32 and 34-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26,27,29-32,34 is/are allowed.
- 6) ☒ Claim(s) 35,36 and 39 is/are rejected.
- 7) ☒ Claim(s) 37,38 and 40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/853,642.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1 November 2005 has been entered.

### ***Response to Arguments***

2. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 35, 36, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by *Song*, U.S. Patent No. 5,744,821.

*Song* discloses [see Figs. 2 and 3, for instance] an LCD comprising a substrate [102], a black matrix [104] formed on the substrate and disconnected at portions thereof, a gate line [100] formed on the substrate, a data line [200] intersecting the gate line, a pixel electrode [111] formed on the substrate, and a conductive pattern [bridge 112 in the text, labeled 105 in the figures] formed on the substrate, separated from the gate line and covering a gap between the disconnected portions of the black matrix. Claim 35 is therefore anticipated.

The gate line is formed on the black matrix, so claim 36 is also anticipated. *Song* also disclose the method of forming this LCD, so claim 39 is also anticipated.

***Allowable Subject Matter***

6. Claims 37, 38, and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 26, 27, 29-32, and 34 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose the device of claim 26, in particular the limitations that the black matrix is mesh-shaped and disconnected at portions, and that there is a conductive pattern separated from the gate lines and covering a gap between the disconnected portions of the black matrix. [By "covering a gap", the examiner understands that the pattern is required to completely cover the gap, reaching or overlapping the edges of the black matrix on either side of the gap; see below regarding *Sato*, for instance.] Claim 26 is therefore allowed, as are its dependent claims 27, 29, and 30. Analogously, the prior art does not disclose the method of claim 31, which is therefore allowed, as are its dependent claims 32 and 34.

The prior art does not disclose the device of claim 37, in particular the additional limitation that the black matrix is mesh-shaped. [*Song* discloses a black matrix which is a array of rectangles rather than a mesh.] Claim 37 would therefore be allowable if rewritten appropriately.

The prior art does not disclose the device of claim 38, in particular the limitation that the conductive pattern separated from the gate line and covering a gap between the disconnected portions of the black matrix is formed on the same plane as the gate line. Claim 38 would therefore be allowable if rewritten appropriately. Similarly, the method of claim 40 is not disclosed by the prior art, so it would be allowable if rewritten appropriately.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,844,646 to *Yanai* discloses an LCD with a black matrix [10] being disconnected at portions, and a conductive pattern [13] on the other substrate.


U.S. Patent No. 5,818,552 to *Sato* discloses an LCD with black matrix [16M] being disconnected at portions, and a conductive pattern [16F] disposed in the gap between disconnected portions, but the conductive pattern does not cover the gap as recited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Andrew Schechter  
Primary Examiner  
Technology Center 2800  
20 February 2006